

# GENERAL PERFORMANCE SPECIFICATIONS

SIGNAL CONNECTOR PERFORMANCE SPECIFICATIONS		
FEATURE	PERFORMANCE	TEST SPECIFICATION
Dielectric Withstanding Voltage	1300 VAC (rms) @ Sea Level 550 VAC (rms) @ 50,000 ft. 350 VAC (rms) @ 70,000 ft. 200 VAC (rms) @ 100,000 ft.	
Insulation Resistance	5000 megohms min. at 25° C	EIA-364-21
Thermal Shock	After cycling the connector between -65° C and +175° C, it will meet all applicable electrical and mechanical requirements.	
Mechanical Shock	No loosening of parts, cracking or other deleterious results hindering further part operation after 300 G's in each of 3 mutually perpendicular planes.	
Vibration	There shall be no electrical discontinuity and there shall be no disengagement of the mated connectors, backing off of the coupling mechanism, evidence of cracking, breaking, or loosening of parts.	Connectors shall be subjected to the test specified in accordance with MIL-STD-202, procedure 204, test condition G
Fungus Resistance	Materials used in the construction of these connectors shall be fungus inert	method 508.4 of MIL-STD-810
Salt Fog	48 to 2000 Hours (See Material & Finish Table Page 4)	EIA-364-26
Durability	No electrical or mechanical defects after 500 cycles of engagement and disengagement	
Contact Engagement & Disengagement	Contact engagement and separating forces shall be within the limits specified in SAE-AS39029	SAE-AS39029

# GENERAL PERFORMANCE SPECIFICATIONS

## POWER CONNECTOR PERFORMANCE SPECIFICATIONS (CLASS L)

**TOPFLITE'S COMMERCIAL EQUIVALENT POWER CONNECTOR SERIES IS BUILT TO MIL-DTL-22992 (CLASS L) SPECIFICATIONS AND IS A DIRECT REPLACEMENT FOR THE MIL-SPEC EQUIVALENT PRODUCTS.**

Temperature Range	-67° to +257°F (-55° to +125°C) Timetable 77°F (25°C): Continuous 221°F (105°C): 35,000 hours 257°F (125°C): 1,000 hours
Heat Rise	Temperature rise of individual contacts will be no more than 54°F (30°C) above ambient temperature
Water Pressure	IP67 rated in fully assembled condition
Salt Fog Rating	500 Hr
Humidity	Mated connectors shall maintain an insulation resistance of 100 megohms or greater at 77°F (25°C) with 95% humidity for duration of 21 days
Chemical Resistance to Fluids	20 hour full immersion (unmated) in hydraulic fluid and lubricating oil without damage or material degradation
Coupling Torque	Engagement & Disengagement Force (max / min) Shell Size 28: 12.32 ft-lbf (16.7 N-m) / .68 ft-lbf (.92 N-m) Shell Size 32: 13.35 ft-lbf (18.1 N-m) / .75 ft-lbf (1.02 N-m) Shell Size 44: 17.63 ft-lbf (23.9 N-m) / .77 ft-lbf (1.05 N-m) Shell Size 52: 17.63 ft-lbf (23.9 N-m) / .77 ft-lbf (1.05 N-m)
Coupling Cycles	250 coupling cycles (minimum)
Shock	50g's, 11ms duration, three major axes, 10 microseconds maximum discontinuity
Vibration	Random vibration at 10 to 2,000Hz (15g's), 10 microseconds maximum discontinuity
Insert Retention	45 lbf/in2 (3.164 kg-cm2)
Max Contact Resistance	<10 milliohm maximum resistance
Grounding	Automatic, grounding, neutral contacts have mate first/break last design
Max Voltage Drop	<10 millivolt maximum drop for grounding contacts
Contact Retention	Pin and socket contacts are designed to resist severe vibration and repeated connection and disconnection
Current Rating	200 amps (rated current) at 68°F (20°C) for inserts 52-12 and 52-13
Max Operating Voltage	2,000 VAC (RMS) at sea level
Insulation Resistance	>5,000 megohms at 77°F (25°C)
Wire Size	6 to 4/0 AWG